

Hall Pyke



Membrane Filtration

Biofil™ II

The SMART choice for filtration

Biofil™ II

Polyethersulphone Membrane Cartridge Filters

A range of microbially rated cartridge filters from Porvair Filtration Group, featuring the latest developments in membrane technology, Biofil™ II cartridges are based on a naturally hydrophilic polyethersulphone (PES) membrane with a mirrored asymmetric pore structure. When combined with quality all-polypropylene cartridge components and high integrity manufacturing techniques common to all Porvair cartridge filters, the polyethersulphone membrane provides a high strength, long life cartridge of consistently precise microbial retention.

Features and Benefits

- **Guaranteed microbial ratings**
Biofil™ II cartridges are validated for bacterial removal according to HIMA guidelines and ASTM F838-05, with a log reduction value >7. They are therefore suitable for applications requiring sterilising grade filtration.
- **Low protein binding**
Biofil™ II cartridges have excellent low protein binding characteristics, typically 10 times lower than nylon, 2 times lower than polysulphone and similar to PVDF.
- **Will not hydrolyse**
- **Excellent chemical compatibility**
- **Cartridge integrity and low TOC levels**
Each Biofil™ II module of every cartridge is individually integrity tested. Each complete filter cartridge is flushed with pure water which is inspected daily for pyrogens using the standard LAL test. When required, they can be pulse flushed with 18MΩ.cm pyrogen-free ultra-clean water.
- **Suitable for steam sterilising**
- **Full traceability**
- **Controlled manufacturing environment**

Materials of Manufacture

Filter membrane:	Polyethersulphone	Inner core:	Polypropylene
Membrane support:	Polypropylene	Outer support:	Polypropylene
Irrigation mesh (support):	Polypropylene	End fittings:	Polypropylene
Drainage layer:	Polypropylene	Support ring:	Stainless steel

Gaskets and O-Rings

FDA approved Ethylene Propylene, PTFE encapsulated, Silicone or Nitrile.

Maximum Differential Pressure

Normal flow direction at:
 20°C (68°F): 6.0bar (87psi)
 80°C (176°F): 4.0bar (58psi)
 100°C (212°F): 3.0bar (43psi)
 120°C (248°F): 2.0bar (29psi)

Sterilisation

In situ steam 80 x 20 minute cycles at 125°C (257°F).
 Hot water 100 x 20 minute cycles at 85-90°C (185-194°F).

Effective Filtration Area

Pore Size Rating	Effective Filtration Area (each 254mm (10") module)
0.04, 0.1, 0.2, 0.45, 0.65 and 1.2µm	0.69m ² (7.4ft ²)

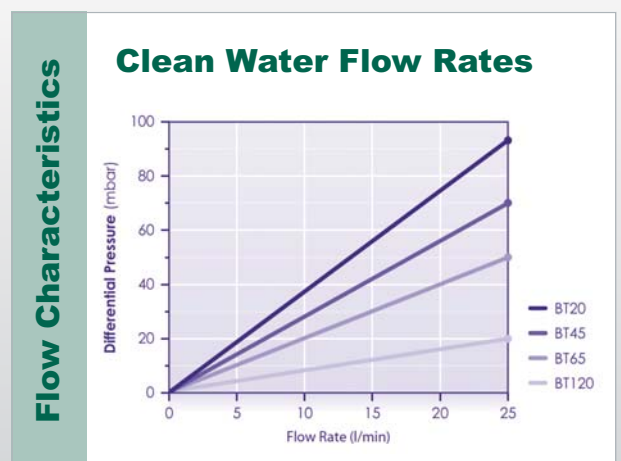


Operating Temperature

Maximum continuous: 60°C (140°F)

Applications

- **Biopharmaceuticals**
For the sub-micronic filtration of ingredients, intermediates, make-up waters and final products, including sterilisation, clarification and bioburden reduction.
- **Ophthalmic solutions**
Shelf life assured through the non-removal of preservatives, such as Benzalkonium Chloride (BAK).
- **Electronics and semiconductors**
For the sub-micronic filtration of process water and chemicals, including solvents, developers and photoresists. Applications typically include central water plant treatment and critical 'wet bench' point of use filtration.
- **Fine chemicals**
- **Beverages**
- **Pure water supply**



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www.hallpyke.ie

Head Office, 3A Sunbury Industrial Estate, Ballymount Road, Walkinstown, Dublin 12.
T. +353-1-4501411 F. +353-1-4507960 E. info@hallpyke.ie W. www.hallpyke.ie